



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
|-----------------|-------------|----------------------|---------------------|------------------|
| 10/600,330 | 06/23/2003 | Kyung-Geun Lee | 1293.1633 | 6586 |

49455 7590 02/19/2008
STEIN, MCEWEN & BUI, LLP
1400 EYE STREET, NW
SUITE 300
WASHINGTON, DC 20005

| |
|----------|
| EXAMINER |
|----------|

DANIELSEN, NATHAN ANDREW

| | |
|----------|--------------|
| ART UNIT | PAPER NUMBER |
|----------|--------------|

2627

| | |
|-----------|---------------|
| MAIL DATE | DELIVERY MODE |
|-----------|---------------|

02/19/2008

PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary

Application No.

10/600,330

Applicant(s)

LEE ET AL.

Examiner

Nathan Danielsen

Art Unit

2627

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 10 December 2007 and 04 January 2008.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1,9,11,12,21,23,24,26 and 32-38 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1,9,11,12,21,23,24,26 and 32-38 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date _____.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____.
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: _____.

DETAILED ACTION

1. Claims 1, 9, 11, 12, 21, 23, 24, 26, and 32-38 are pending. Claims 3, 14, and 19 have been canceled in applicant's amendment filed 23 February 2007. Claims 2, 4-7, 13, 15-18, 25, and 27-30 have been canceled in applicant's amendment filed 07 August 2007. Claims 8, 10, 20, 22, and 31 have been canceled in applicant's amendment filed 10 December 2007.

Continued Examination Under 37 CFR 1.114

2. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on 10 December 2007 has been entered.

Claim Rejections - 35 USC § 112

3. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

4. Claims 11 and 23 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

5. Claims 11 and 23 recite the limitation "the storage layer information". There is insufficient antecedent basis for this limitation in the claims.

Claim Rejections - 35 USC § 103

6. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to

Art Unit: 2627

a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

7. Claims 1, 9, 12, 21, 24, 26, and 32-35 are rejected under 35 U.S.C. 103(a) as being unpatentable over Ohno et al (US Patent Application Publication 2002/0024923; hereinafter Ohno), in view of Ito et al (US Patent 5,881,032; hereinafter Ito).

Regarding claims 1, 12, and 32, Ohno discloses an information storage medium (and corresponding methods of recording/reproducing and operating) comprising:

a user data area (Track #1 in figure 1) provided with a sequence of basic recording units (packets #1-3 in figure 1, each containing the user data blocks of figure 7) to record user data (§ 29),

wherein information about the user data area, where user data is recorded, is recorded in at least one of a run-in area and a run-out area of each basic recording unit of the user data area (each of the link, run-in, dummy, and run-out blocks in figure 7 serve as an indication of where the user data blocks are located since there is a discrete number of each type of block, especially the link and run-in blocks, that must be recorded prior to the recording of the user data blocks, thus indicating on a block-by-block basis where the user data is recorded (see also § 78); additionally, the run-in blocks of figure 7 are located immediately before the user data blocks in a scanning direction, as suggested by the arrow and order of link, run-in, dummy, and run-out blocks in figure 6, which, in combination with § 80, suggests that each block (or sector, see § 17) (such as ADR blocks #101-#2) has its own unique identifier, such as an address).

However, Ohno fails to disclose where the information about the user data area includes layer information of the information storage medium recorded in the form of consecutive patterns of identical intervals or in the form of different patterns of different sized intervals.

In the same field of endeavor, Ito discloses where the information about the user data area includes layer information of the information storage medium recorded in the form of consecutive patterns of identical intervals or in the form of different patterns of different sized intervals (col. 2, lines 6-11 and figure 4; where each layer has a predetermined range of addresses, where the sector addresses increase

Art Unit: 2627

from lead-in to lead out areas on layer one and continue according to the solid black lines in the positive sector address direction, and where each address is represented on the disk by a different pattern).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to have modified the structure of the disc of Ohno to accommodate the multiple layers of Ito, for the purpose of increasing the storage capacity of the disc (col. 2, lines 17-21).

Regarding claims 9, 11, 21, and 23, Ohno, in view of Ito, discloses everything claimed, as applied to claims 1 and 12. However, Ohno fails to *explicitly* disclose where each sector/block contains a unique address.

In the same field of endeavor, Ito discloses where the information about the user data area (layer information) is recorded using addresses (col. 1, lines 37-39 and col. 2, lines 6-11, in combination with ¶ 17 of Ohno).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to have modified the structure of the disc of Ohno to accommodate the multiple layers of Ito, for the purpose of increasing the storage capacity of the disc (col. 2, lines 17-21).

Regarding claim 24 and 26, Ohno, in view of Ito, discloses everything claimed, as applied to claim 1. Additionally, Ohno discloses where the information storage medium is one of recordable and reproduction-only optical discs (¶s 102 and 105).

Regarding claims 33 and 35, Ohno, in view of Ito, discloses everything claimed, as applied to claim 32. Additionally, Ohno discloses where the method of claim 32 further comprises recognizing a layer of the storage medium based on the accessed information, wherein the operating of the storage medium includes recording and/or reproducing data with respect to the layer (inherent in the apparatus capable of recording on/reproducing from the single-layer recording medium of figures 1, 6, and 7; where, when reproducing information from the single layer, any successful attempt to reproduce the information causes the apparatus to recognize it as a recording layer).

Regarding claim 34, Ohno, in view of Ito, discloses everything claimed, as applied to claim 33. Additionally, Ohno discloses where the recognizing of the layer comprises recognizing the layer in response to the accessed information belonging to a predetermined group of addresses (inherent in the

Art Unit: 2627

apparatus capable of recording on/reproducing from the single-layer recording medium of figures 1, 6, and 7; where, when reproducing information from the single layer, any successful attempt to reproduce the information causes the apparatus to recognize it as a recording layer, to which is assigned a specific range of address values).

Regarding claim 36, Ohno, in view of Ito, discloses everything claimed, as applied to claim 35. However, Ohno fails to disclose how to discriminate between multiple recording layers.

In the same field of endeavor, Ito discloses where the identifying of the desired layer comprises: recognizing a storage layer of the storage medium as the desired layer in response to the accessed information belonging to a predetermined range (inherent in the different range of addresses assigned to each layer, as illustrated by figures 3 and 4); and in response to the accessed information not belonging to the predetermined range, accessing another storage layer of the storage medium so as to determine whether accessed information thereof belongs to the predetermined range (col. 16, line 30 through col. 17, line 4, and figure 8).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to have modified the format and structure of the disc of Ohno with that of Ito, for the purpose of determining which layer is to be recorded on/reproduced from (col. 4, line 58 through col. 5, line 2).

Regarding claim 37, Ohno, in view of Ito, discloses everything claimed, as applied to claim 36. Additionally, Ohno discloses where the operating of the storage medium includes recording and/or reproducing data with respect to the desired layer (inherent in a reproducing device).

Regarding claim 38, Ohno, in view of Ito, discloses everything claimed, as applied to claim 35. However, Ohno fails to disclose how to discriminate between multiple recording layers.

In the same field of endeavor, Ito discloses where the method of claim 32 further comprises identifying storage layers of the storage medium, wherein the identifying of the storage layers comprises: recognizing a first layer of the storage layers in response to the accessed information belonging to a first predetermined range (col. 16, line 30 through col. 17, line 4 and figure 8);

Art Unit: 2627

in response to the accessed information not belonging to the first predetermined range, accessing a second layer of the storage layers so as to determine whether accessed information thereof belongs to a second predetermined range (col. 16, line 30 through col. 17, line 4 and figure 8);

recognizing the second layer of the storage layers in response to accessed information thereof belonging to the second predetermined range (col. 16, line 30 through col. 17, line 4 and figure 8); and

in response to the accessed information of the second layer not belonging to the second predetermined range, accessing another layer of the storage layers so as to determine whether accessed information thereof belongs to the second predetermined range (col. 16, line 30 through col. 17, line 4, and figure 8).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to have modified the format and structure of the disc of Ohno with that of Ito, for the purpose of determining which layer is to be recorded on/reproduced from (col. 4, line 58 through col. 5, line 2).

Response to Arguments

8. Applicant's arguments filed 10 December 2007 have been fully considered but they are not persuasive.

a. Regarding applicant's arguments that Ohno, in view of Maeda and Ito, fail to teach or fairly suggest teaching where layer information is recorded in the form of consecutive patterns of identical intervals or in the form of different patterns of different sized intervals, the examiner disagrees. Ohno discloses where each block in figures 6 and 7 corresponds to a 2 kb sector, and Ito discloses where each 2 kb sector comprises an address for uniquely identifying each sector. Ito further discloses where a range of addresses on each layer are different from every other layer on the disc. Therefore, Ito makes up for the deficiencies of Ohno, the combination of these references is proper, and the rejection is hereby maintained.

Art Unit: 2627

Closing Remarks/Comments

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Nathan Danielsen whose telephone number is (571) 272-4248. The examiner can normally be reached on Monday-Friday, 9:00 AM - 5:00 PM Eastern Time.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, William Korzuch can be reached on (571) 272-7589. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Nathan Danielsen
02/11/2008

/William Korzuch/
SPE, Art Unit 2627